

**DRAWING AMENDMENTS:**

FIG. 4 has been amended, wherein step S6 has been replaced by "Performing a scramble process to the data including main data, ID, IEC, RSV, and EDC", step S7 has been replaced by "Generating the PI according to the scrambled data and attaching the PI to the data sector", step S8 has been replaced by "Storing the scrambled data and the attached PI to the DRAM" and step S9 has been replaced by "Generating the out-code parity (PO) according to the data stored in the DRAM and interleaving the data sectors and PO".

FIG. 5 has been amended, wherein step 520 has been replaced by "Performing a scrambling procedure on vertically-sequenced data sectors of the main data and deriving PO from the result", step 530 has been replaced by "Performing a horizontally scrambling procedure to scramble the main data and deriving PI of each data sector from the result and PO", and step 540 has been replaced by "Recording the horizontally scrambled main data accompanied with ID, IED, RSV, EDC, PI, and PO onto a disc".

**REMARKS**

The Examiner's Action mailed on August 10, 2006, has been received and its contents carefully considered.

In this Amendment, Applicants have editorially amended the specification, the drawings and claims 1, 2, 4-9, 12, 14-17, 19, 22 and 24-26. Claims 1, 9 and 19 are the independent claims, and claims 1-27 remain pending in the application. For at least the following reasons, it is submitted that this application is in condition for allowance.

Applicants wish to thank the Examiner for indicating that claims 1-27 would be allowable if rewritten or amended to overcome the rejections under 35 U.S.C. 112, ¶2, as discussed below.

The drawings were objected to, and FIGs. 4 and 5, as well as claims 5, 6, 15, 16, 25 and 26 have been amended accordingly. Replacement drawing sheets are submitted herewith. It is therefore respectfully requested that this objection be withdrawn.

The Office Action asserts that the step (S7) should refer to attaching parity PO instead of parity PI according to FIG. 12 of *Sako et al.* (US 6,005,839). However, *Kuroda et al.* (US 5,815,472; also listed in Information Disclosure Statement) discloses " For each data block **33** arranged in the vertical direction, an ECC internal code (PI (Parity In) sign) **31** having 10 bytes data is affixed to the end of the data block **33** to constitute one correction block **34** (refer to right side of

FIG. 1B). At this stage, the correction blocks **34** to which the ECC internal codes **31** are affixed and arranged in 12 lines in the vertical direction. After that, this process is repeated with respect to 16 data sectors **20**. Accordingly, the correction blocks **34** of 192 (=12.times.16) lines are obtained. Next, the correction blocks **34** of 192 lines are divided for each one byte in the vertical direction from the beginning thereof, in the state that the 192 lines of the correction blocks **34** are arranged in the vertical direction. Then, 16 ECC external codes (PO (Parity Out) signs) **32** are affixed to each of the vertically divided data blocks. It is noted that the ECC external code **32** is also affixed to a portion of the ECC internal code **31** within the correction block **34**" (see column 8, line 63 ~ column 9, line 12). Thus, Applicant believes that replacing the generation of PI in step S7 and PO in step S9 is not necessary.

The Office Action further asserts that the step (S9) should be a parity PI generation step and does not mention including the parity PO in the data used for the generating of parity PI as required by the standard DVD format, nor does it mention interleaving the data and parity PO first, as required by the standard DVD format. For the reason described above, Applicant believes that step (S9) can be a parity PO generation step. In addition, the data stored in the DRAM comprises the scrambled data and the attached PI after step S8.

The specification was also objected to, and the paragraphs referred to in the Office Action have been amended as suggested. It is therefore respectfully

requested that this objection be withdrawn.

Claims 2, 12, 17 and 22 were objected to for informalities and have been amended as suggested. It is therefore respectfully requested that this objection be withdrawn.

Claims 1-27 were rejected under 35 U.S.C. 112, ¶2, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1, 9 and 19 have been amended as suggested by Examiner, and it is therefore respectfully requested that this objection be withdrawn.

Applicant has amended Claims 1, 9 and 19 to overcome the rejections under 35 U.S.C. 112, ¶2, set forth in the Office action. Claim 1 is therefore allowable in its present form. Insofar as claims 2-8 depend from claim 1 and its related claims, these claims are also allowable. In addition, Applicant believes that Claim 9 is allowable in its present form. Insofar as claims 10-18 depend from claim 9 and its related claims, these claims are also allowable. In addition, Claim 19 is allowable in its present form. Insofar as claims 20-27 depend from claim 19 and its related claims, these claims are also allowable.

It is submitted that this application is in condition for allowance. Such action and the passing of this case to issue are requested.

Should the Examiner feel that a conference would help to expedite the prosecution of this application, the Examiner is hereby invited to contact the undersigned counsel to arrange for such an interview.

AMENDMENT

10/780,563

Should any fee be required, however, the Commissioner is hereby authorized to charge the fee to our Deposit Account No. 18-0002, and advise us accordingly.

Respectfully submitted,

November 7, 2006  
Date



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